

Problem of the Day

Is this corollary 1 or corollary 2 for theorem 7-3?

$$\frac{s_1}{a} = \frac{a}{s_2}$$

Feb 3-7:07 AM

Answer: corollary 1!

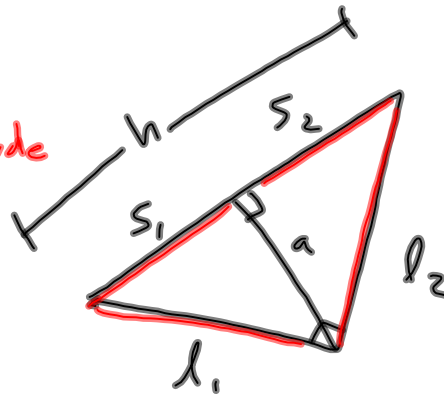
Remember, corollary 1 is used with the altitude (a) and hypotenuse segments (s_1 and s_2).

$$\frac{s_1}{a} = \frac{a}{s_2}$$

Feb 3-7:11 AM

Corollary 1

$$\frac{s_1}{a} = \frac{a}{s_2} \leftarrow \text{altitude}$$



Corollary 2

$$\frac{s_1 + s_2}{l_1} = \frac{l_1}{s_1} \text{ OR } \frac{s_1 + s_2}{l_2} = \frac{l_2}{s_2}$$

Feb 3-7:18 AM

Working with extended ratios

If a car lot has 256 cars and the ratio of compact cars to sedans to sports cars is 4:3:1 ↓
how many of each car is on the lot?

| | | | |
|----------|--------------|--------------------------|-------|
| 4x comp | 128 | Sum of the parts = total | = 256 |
| 3x sed | 96 | | |
| x sports | 32 | | |
| | <u>256</u> ✓ | | |

$$4x + 3x + 1x = 256$$

$$8x = 256$$

$$x = 32$$

Feb 3-7:32 AM

Pet shop

104 cats & dogs

5 : 3

$$5x + 3x = 104$$

$$8x = 104$$

$$x = 13$$

$$5x \text{ cats} = 65$$

$$3x \text{ dogs} = 39$$

$$\underline{104}$$

$$\frac{104}{8} =$$

Feb 3-12:39 PM

In-class task! Answer the following questions.

A pet store has fish in a ratio of 1:3:5 for redfish, goldfish and bluefish.

1 3 5

1) If there are 18 redfish how many goldfish and blue fish are there?

2) If there are 189 total fish how many of each fish are there?

Feb 3-7:26 AM

Geometric Mean (x)

A proportion involving
any two numbers a, b

$$\frac{a}{x} = \frac{x}{b}$$

$$x^2 = a * b$$

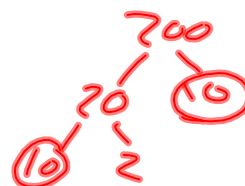
Geometric mean → $x = \sqrt{a * b}$
Shortcut

$$10 \quad 20$$

$$x = \sqrt{10 * 20}$$

$$x = \sqrt{200}$$

$$x = 10\sqrt{2}$$



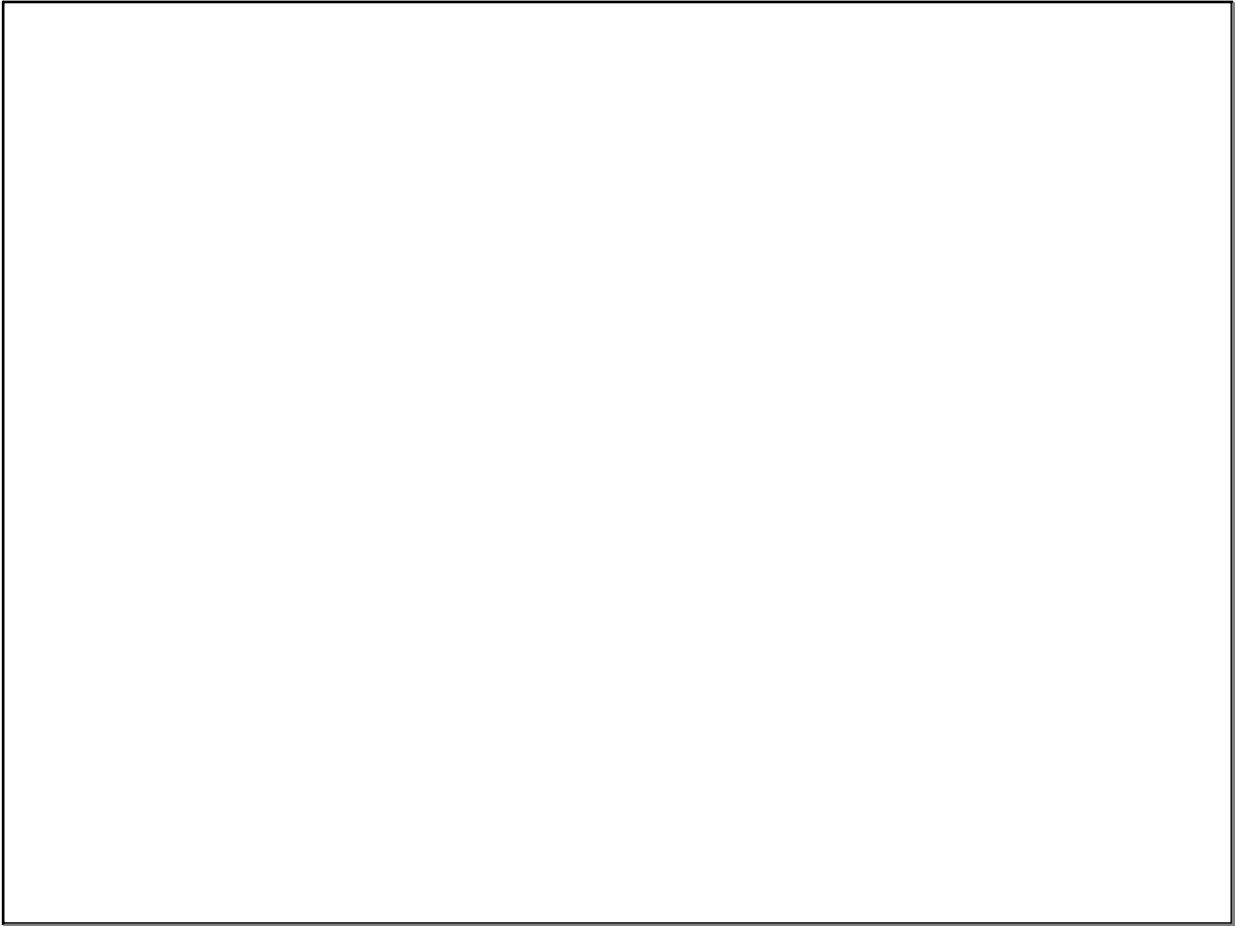
Feb 3-7:53 AM

Handout 7-4

Work on this in your groups. If you finish by the end of class you get a bonus point!

Note some of the instructions tell you to "pick 2" questions to do.

Feb 3-8:05 AM



Feb 3-10:53 AM